

**REMARKS****Summary of the Office Action**

Claims 1-3, 6 and 8 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Li et al. (NPL document, Time-domain dielectric constant measurement of thin film in GHz-Thz frequency range near the Brewster angle).

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Li et al.

Claims 4 and 5 stand objected to as being in improper multiple dependent form.

Claim 5 stands objected to because of a minor informality.

The Specification stands objected to because it does not include a statement claiming priority to the foreign priority application.

The Abstract stands objected to because it exceeds 150 words.

The Drawings stand objected to because FIGs. 1(a)-1(d) are missing the label "Prior Art."

**Summary of the Response to the Office Action**

Independent claims 1 and 6 are amended to further define the invention, claims 2-5, 7 and 8 are amended to correct the minor informalities, claims 4 and 5 are amended to correct the improper multiple dependency form, and new claims 9-12 are added. In addition, the Abstract of the Disclosure is amended. Furthermore, two sheets of Replacement Drawings are filed concurrently herewith. Accordingly, claims 1-12 are presently pending for consideration.

**Objection to the Specification**

The Specification stands objected to because it does not include a statement claiming priority to the foreign priority application. Applicant amends the specification by providing the statement that cross references the previously filed applications, as suggested by the Examiner. Accordingly, Applicant respectfully requests that the objection to the specification be withdrawn.

**Objection to the Abstract**

The Abstract of the Disclosure stands objected to because it exceeds 150 words. Applicant amends the abstract. Accordingly, Applicant respectfully requests that the objection to the Abstract be withdrawn.

**Objection to Drawings**

The Drawings stand objected to because FIGs. 1(a)-1(d) are missing the label "Prior Art." Applicant respectfully submits concurrently herewith two sheets of replacement drawings that revise FIGs. 1(a)-1(d). Applicant respectfully submits that no new matter is introduced by way of this Submission of Replacement Drawings and respectfully requests that the objection to the drawings be withdrawn.

**Objection to claims 4 and 5**

Claims 4 and 5 stand objected to as being in improper multiple dependent form. Claims 4 and 5 are amended to correct the improper multiple dependent form. Accordingly, Applicant respectfully requests that the objection to claims 4 and 5 be withdrawn. In addition, Applicant respectfully requests the Office to examine the amended claims 4 and 5 on the merits.

**All Claims Define Allowable Subject Matter**

Claims 1-3, 6 and 8 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by Li et al. (NPL document, Time-domain dielectric constant measurement of thin film in GHx-Thz frequency range near the Brewster angle). Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Li et al. Applicant respectfully traverses the rejections for at least the following reasons.

With respect to independent claims 1 and 6, as amended, Applicant respectfully submits that Li et al. fails to teach or suggest a combination of features including at least “irradiating a sample with light at a first incident angle, whereby the light undergoes multiple internal reflections within the sample; measuring light that has transmitted through or reflected on the sample following said multiple internal reflections; and determining a complex dielectric constant of the sample based upon a spectrum of the transmitted or reflected light that has undergone said multiple internal reflections.”

Applicants respectfully submit that the present invention relates to a technique that involves multiple internal reflections within the sample. In general, these reflections increase the overall time spent by the light within the sample, whereby the interaction between the light and the sample is enhanced, leading to more precise measurement of complex dielectric constant. However, Li et al. fails to teach or suggest the technique that determines a complex dielectric constant of a thin film sample based upon measurements of light that has undergone multiple internal reflections within the sample. In contrast to the Applicant’s claimed invention, Li et al. teaches exclusively the tera-hertz time domain spectroscopy (known as TDS). Applicant respectfully submits that TDS does not use measurements of multiple internally reflected light that has been transmitted through or reflected by the sample. As shown in FIGs. 2-4 of Li et al.,

the measurements generated by the tera-hertz time domain spectroscopy method are the tera-hertz pulse reflected at the surface of the sample. In other words, these tera-hertz pulses were not light that has undergone the multiple internal reflections within the sample.

As pointed out in MPEP § 2131, “[t]o anticipate a claim, the reference must teach every element of the claim.” Thus, “[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. Verdegaal Bros. v. Union Oil Co. of California, 2 USPQ 2d 1051, 1053 (Fed. Cir. 1987).”

Accordingly, Applicant respectfully asserts that the rejection of independent claims 1 and 6 under 35 U.S.C. § 102(b) should be withdrawn because Li et al. fails to disclose each and every feature recited in amended independent claims 1 and 6. Further, Applicant respectfully submits that rejection under 35 U.S.C. § 103(a) should be also withdrawn because Li et al. fails to cure the deficiency of itself. Moreover, the rejection of claims 2-5, 7 and 8 should also be withdrawn for at least the same reasons as discussed above with respect to amended independent claims 1 and 6, their dependency from respective one of amended independent claims 1 and 6, as well as the individual features that dependent claims 2-5, 7 and 8 recite.

### **New Claims**

New claims 9-12 are added. Applicant respectfully submits that new claims 9-12 are expanded from the multiple dependent claims. Accordingly, Applicant respectfully requests consideration of newly added claims 9-12.

**CONCLUSION**

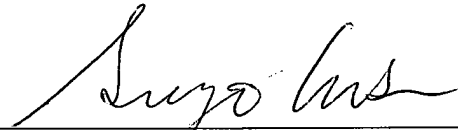
In view of the foregoing remarks, Applicant respectfully requests reconsideration of this application, withdrawal of all rejections, and the timely allowance of all pending claims. Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicant's undersigned representative to expedite the prosecution.

If there are any other fees due in connection with the filing of this response, please charge the fees to our Deposit Account No. 50-0310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Respectfully submitted

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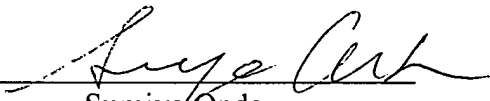
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It is respectfully submitted that these changes introduce no new matter as it conforms to the specification or drawings as originally filed, 37 C.F.R. § 1.81(d).

Respectfully submitted,

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